

**ABSTRACT**

A method for performing secured communications in a Voice Browser can include the steps of: transmitting a request from the Voice Browser to a network device for a secure communications session between the Voice Browser and the network device; receiving from the network device a digital certificate containing a public key and a reference to a certificate authority; and, authenticating the network device based on the digital certificate. Preferably, the digital certificate can be an X.509-compliant digital certificate. Subsequent to the authentication, the method can include the steps of negotiating a shared secret with the network device; encrypting data using the shared secret as an encryption key and transmitting the encrypted data to the network device; and, receiving encrypted Web content from the network device and decrypting the Web content using the shared secret as a decryption key. Significantly, the Web content can be a VoiceXML document and the Voice Browser can be a VoiceXML Browser Server.